# USIU-AFRICA LOGO

# United States International University

Summer Semester 2016

**MIS6220 RESEARCH METHODS**

**Instructor** Jimmy Macharia, PhD

Associate Professor of Information Systems & Technology,

**Office Hours:** TUE 2.30 to 5.30 pm, THU 4.00 PM to 6.00 PM

**Class Time: FRI:** 5.30 PM – 7.00 PM ICT LAB 03

**FRI** .20 PM – 9.00 PM ICT LAB 03

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# Schedule of Class Meetings

|  |  |  |
| --- | --- | --- |
| **Day** | **Time** | **Location** |
| FRI -Session 1 | 5.30 PM – 7.00 PM | LAB\_03 |
| FRI -Session 2 | 7.20 PM – 9.00 PM | LAB\_03 |

*Pre-requisite: None*

*Credit Units: 3*

1. **Purpose of the Course**

The purpose of this course is to expose students to research methods for conducting MIS research. Students will be taken through the process of identification of research problem, formulation of research questions, how to conduct a literature review, the process of data collection and analysis and dissemination of research findings. Also included is an emphasis on the use of appropriate statistical package to analyze descriptive and inferential statistics.

1. **Expected Learning Outcomes**

By the end of this course, students will:

* Identify and investigate research problems applied to the field of IST.
* Formulate research objectives, research questions/hypotheses.
* Conduct appropriate literature survey in the field of IST.
* Design and implement an appropriate data collection methodology.
* Write and present a research proposal that will form the basis of the Research project.
* Write and submit a research Journal article that will form part of your portfolio for this course.

1. **Course Content**

Introduction to Research, Scientific Investigation, the Research Process: The Broad Problem Area and Defining the Problem Statement. The Research Process: Theoretical Framework and Hypothesis Development. The Research Process: Elements of Research Design. Research design and methods of data collection.Measurement of Variables: Operational Definition. Measurement: Scaling, Reliability, and Validity, Data Collection, The Questionnaire Method, Formulating Questions for a Survey, Survey Implementation, Editing, Coding and Data Entry, Analysis of Survey Data, and Sampling Methods, Data Analysis using SPSS, Writing a Journal research article and Research Report.

1. **Schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Week** | **TOPIC** | **Student hands on Activities** | **Assignments DUE** | **Due date** | **Reference &Readings** |
| Week 01 | 1 Introduction to research 1 | * Fields in the Discipline Computer Science * Fields in the Discipline of Information Systems * Selecting Your Journal article Research Topic * Selecting Your individual project Research Topic * Searching ICT skills * Referencing style * Class Ex 1 * Class Ex2 * SPSS 22 Assignment 1 * Case study 1 * Quiz 1 on Blackboard | * Group Journal research article title/topic * Individual research project title | Friday 20May 2016 | * S.Chp1 * CS Chp 1 * MS. Chp 2 * Week 1 Readings |
| Week 02 | 2The scientific approach and alternative approaches to investigation 18 | * Writing the outline of your Journal article * Writing the outline of your Proposal * SPSS 22 Assignment 1 (cont’d) * Case study 2 * Quiz 2 on Blackboard | * Group Journal research article problem statement * Individual research project abstract, background, objectives & problem statement | Friday 27 May 2016 | * S.Chp2 * CS Chp 3,4,5 * Week 2 Readings |
| Week 03 | 3 The broad problem area and defining the problem statement 33 | * Writing the problem statement * SPSS 22 Assignment 1 (cont’d) * Case study 3 * Quiz 3 on Blackboard | * Group Journal research article problem statement * Complete Individual research project proposal chapter1 as per student handbook | Friday June 3rd 2016 | * S.Chp3 * CS Chp * Week 3 Readings |
| Week 04 | 4 The critical literature review 48 | * Writing critical literature review * SPSS 22 Assignment 1 (cont’d) * Case study 4 * Quiz 4 on Blackboard | * Group Journal research article literature review * Complete Individual research project proposal up to complete Literature Review covering research gaps and conceptual/Theoretical framework | Friday June 10 2016 | * S.Chp4 * MS.Chp 3 * Week 4 Readings |
| Week 05 | 5 Theoretical framework and hypothesis development 67 | * Developing a theoretical framework * SPSS 22 Assignment 2 * Case study 5 * Quiz 5 on Blackboard | * Group Journal research article Theoretical Framework * Case study 5 | Friday June 17 2016 |  |
| Week 06 | 6 Elements of research design 94 | * Describing your research DEsign * SPSS 22 Assignment 2 (cont’d) * Case study 6 * Quiz 6 on Blackboard | * Group Journal research article methodology * Complete Individual research project proposal including research methodology | Friday June 24 2016 | * S.Chp6 * CS Chp 6,7 * MS.Chp 5 * Week 5 Readings |
| Week 07 | 7 Data collection methods: Introduction and interviews 112  8 Data collection methods: Observation 129 9 Data collection methods: Questionnaires 146 | * Designing a good questionnaire * SPSS 22 Assignment 2 (cont’d) * Case study 7 * Quiz 7 on Blackboard | * Group Journal research article Questionnaire * SPSS Assignment 2 | Friday July 1 2016 | * S.Chp7,8,9 * CS Chp 10,11,12,13 * MS.Chp 9,10,11 * Week 7 Readings |
| Week 08 | **Mid Semester** |  | **Mid Semester** | Friday July 8 2016 |  |
| Week 09 | 10 Experimental designs 168 | * SPSS 22 Assignment 2 (cont’d) * Case study 9 * Quiz 9 on Blackboard | * Group Journal research article Data collection * Complete Individual research project proposal including Chapter 4 designs and implementation strategy | Friday July 15 2016 | * S.Chp10 * CS.Chp 14 * MS.Chp 5 * Week 9 Readings |
| Week 10 | 11 Measurement of variables: Operational definition 197  12 Measurement: Scaling, reliability, validity 210 | * SPSS 22 Assignment 3 * Case study 10 * Quiz 10 on Blackboard | * Group Journal research article Data entry and analysis * Individual research project proposal Peer Review & Revision * Case study 9 | Friday July 22 2016 | * S.Chp11,12 * CP. Chp 8,9 * Week 10 Readings |
| Week 11 | 13 Sampling 239 | * SPSS 22 Assignment 3 (cont’d) * Case study 11 * Quiz 11 on Blackboard | * Group Journal research article discussion and conclusion * Final complete Individual research project proposal Submission | Friday July 29 2016 | * S.Chp13 * CS.Chp 7 * MS.Chp 7 * Week 11 Readings |
| Week 12 | 14 Quantitative data analysis 274  15 Quantitative data analysis: Hypothesis testing 302  16 Qualitative data analysis 336 | * SPSS 22 Assignment 3 (cont’d) * Case study 12 * Student Individual; project presentation * Quiz 12 on Blackboard | * Group Journal research article online submission into a journal * SPSS Assignment 3 | Friday August 5 2016 | * S.Chp14,15,16 * CS Chp 15, 16, 17, 18, 19 * MS.Chp12, 13 * Week 12 Readings |
| Week 13 | 17 The research report & Presentation | Student Individual; project presentation   * Quiz 13 on Blackboard | * Proposal PPT * Case study 13 | Friday August 12 2016 | * S.Chp17 * CS Chp 20 * MS.Cp14 * Week 13 Readings |
| Week 14 | Week 1-13 materials | Final Examination |  | Friday August 19 2016 |  |

1. **Mode of Delivery**

Lectures and delivery through the Blackboard e-learning platform. Presentations by members of the class, Case discussions, Tutorials, Assignments, group work, practical laboratory-based work, Library, appropriate software, manual/notes, classroom based exercises and directed self-study.

1. **Instructional Materials and/or Equipment**

Course text, Handouts, White board, Smart board, LCD Data projector, Presentation slides, YouTube Videos Blackboard e-learning platform and Journals.

1. **Course Assessment**

Class assignments, take-home assignments, tests, small projects to demonstrate use of software tools;

1. Participation 5%
2. Complete Project Proposal 25% (5 marks for each chapter, and 5 for references)
3. Quizzes,Assignments& Case studies 20%
4. Mid-Semester Exam 20%
5. Final Semester exams 30%

**Total 100%**

1. **Core Reading Materials**
   1. Ronald S. King (2012). Research Methods for Information Systems,
   2. Sekaran, U., & Bougie, R. (2014). Research Methods for Business: A Skill-Building Approach, 6th Edition. <http://bcs.wiley.com/he-bcs/Books?action=index&itemId=111994225X&bcsId=8024> [WWW.WILEYOPENPAGE.COM](http://WWW.WILEYOPENPAGE.COM)
   3. Cooper, D. R., & Schindler, P. S. (2014). Business Research Methods (12th ed.). Wittenberg: McGraw-Hill Companies. <http://highered.mheducation.com/sites/0073521507/student_view0/index.html>
   4. Saunders, M., Lewis, P., & Thornhill, A. (2009). Research Methods for Business Students (6th ed.). Tokyo: Prentice Hall. <http://wps.pearsoned.co.uk/ema_uk_he_saunders_resmethbus_6/>
2. **Recommended Reference Materials**
   1. Alan Hevner · Samir Chatterjee. (2010) Design Research in Information Systems Theory and practice
   2. Anna Sidorova • Nicholas Evange lopoulos, Russell Torres • Vess Johnson. (2013) A Survey of Core Research in Information Systems
   3. Tharenou, P., Donohue, R. & Cooper, B. (2007). *Management Research Methods*, Cambridge University Press, Cambridge.
   4. Bryman, A., & Bell, E. (2007). *Business Research Methods*. Oxford University Press, Oxford
   5. Miller, D., Salkind, N. (2002). *Handbook of Research Design and Social Measurement.*6th Edition, SAGE Publications, Inc.
   6. Abdulah, N. (1986). *Designing Social Surveys in the Caribbean.* Institute of Social and Economic Research, University of the West Indies.
   7. Singleton, et al. (1988). *Approaches to Social Research.* 2nd Edition. Oxford University Press, New York.
   8. Moser, C., Kalton, M. (1985). *Survey Methods in Social Investigation*. 2nd Edition, Dartmouth Publishing Co Ltd.
   9. Marija, N. *From Paper into a File.* In Introduction to Statistics Guide: SPSS-X, Planning Institute of Jamaica.
   10. Planning Institute of Jamaica. (1992). Appendix 1: *Survey Design – Section VII: Data Entry/Cleaning*. In Jamaica Survey of Living Conditions – Report.
   11. Neuman, W.L. (2009). *Social Research Methods – Qualitative and Quantitative Approaches.* 7th Edition, Pearson.
   12. Frankfort-Nachmias, C., Leon-Guerrero, A. (2011). *Social Statistics for a Diverse Society*. 6th Edition, SAGE Publications, Inc.
   13. Shively, P. W. (2004). *The Craft of Political Research.* 6th Edition, Pearson.

# Recommended Reference Journals

1. MIS Quarterly
2. Information Systems Research
3. Communications of the Association of Information Systems
4. Journal of Management Information Systems
5. Information Systems Journal
6. European Journal of Information Systems
7. others

# Class Policy Information for Students

* 1. **Attendance**: Students are expected to attend classes regularly in accordance with the current USIU Calendar attendance policy. Lab attendance is mandatory.
  2. **Class Conduct**: Students are expected to act professionally during class. Respect your instructors and your fellow students. Be considerate to others.Students are required to attend all classes **on time** and should not enter the classroom 15 minutes after the class’ scheduled starting time. If you have to leave the class early, please inform the instructor before the class begins. Please sit near the door and exit quietly. If you fail to inform the instructor before you leave, no credit will be given for your class attendance. Please observe the following class rules when the class is in session:
* Do not talk to your fellow students unless in class work discussions
* Do not read newspaper or magazine
* Do not use your hand phone (please turn off your hand phone and beeper)
* Do not eat or drink in class
* Do not leave the class without permission

Any violation of these class rules will be subject to point reduction (e.g., 1 points for each violation) and possible dismissal from the class.

1. **Course Outline Changes**: The material specified in this course outline may be changed by the instructor. If changes are required, they will be announced in class by the instructor.
2. **Illness**: A doctor's note is required for any illness causing you to miss class, an assignment, quiz, test, or exam. At the discretion of the instructor, you may be allowed to complete the work missed or have the work prorated, (i.e., an average is given according to your performance throughout the course).
3. **Makeup Tests, Exams or Quizzes**: All tests/exams/quizzes must be taken at the time scheduled. **There will in general be no makeup tests, exams or quizzes**. If you miss a test, exam or quiz, you will in general receive zero marks. Exceptions may be made for documented medical reasons or extenuating circumstances, but you **must** notify your instructor within 24 hours, preferably in advance of the test/quiz/exam. Any evaluations not made up or prorated will receive a grade of 0. **No more than 20% of the course evaluation may be prorated or missed**, otherwise an incomplete or failure will be assessed.
4. **A Mid-Semester Examination (20 points)**

The mid-term examination will be closed book and closed notes. No make-up examination will be given. Students missing the midterm exam will have the midterm grading weights shifted to the final.

1. **A Comprehensive Final Examination (20 points)** The final examination will be closed book and closed notes. It covers all the chapters with heavieremphasis on those chapters covered after the mid-term examination.
2. **Academic Dishonesty**

The University Regulations on academic dishonesty will be strictly enforced. Please check the Academic dishonesty & ethics policy in the student handbook and catalogue

* + 1. **Ethics**: USIU assumes that all students attending the University will follow a high standard of ethics. Incidents of cheating or plagiarism will be dealt with in accordance with USIU's Conduct and Attendance Policy in the calendar and may result in a grade of zero for the assignment, paper, proposal, quiz, test, exam, or project for all parties involved and/or expulsion from the course. Academic dishonesty is behavior in which a deliberately fraudulent misrepresentation is employed in an attempt to gain undeserved intellectual credit, either for oneself or for another. It includes, but is not necessarily limited to, the following types of cases:
    2. **Plagiarism -** The representation of someone else's ideas as if they are one's own. Where the arguments, data, designs, etc., of someone else are being used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references. The references must fully indicate the extent to which any parts of the project are not one's own work. Paraphrasing of someone else's ideas is still using someone else's ideas, and must be **acknowledged**.
    3. **Unauthorized Collaboration on Out-of-Class Projects** - The representation of work as **solely** one's own when in fact it is the result of a joint effort or other people’s effort.
    4. **Cheating on In-Class Exams** - The covert gathering of information from other students, the use of unauthorized notes, unauthorized aids, etc.
    5. **Unauthorized Advance Access to an Exam** - The representation of materials prepared at leisure, as a result of unauthorized advance access (however obtained), as if it were prepared under the rigors of the exam setting. This misrepresentation is dishonest in itself even if there are not compounding factors, such as unauthorized uses of books or notes. Where a candidate for a degree or other award uses the work of another person or persons without due acknowledgement:

(a) The relevant disciplinary committee may impose a penalty in relation to the seriousness of the offence;

(b) The relevant Examiners may report the candidate to the academic council, where there is *prima facie* evidence of an intention to deceive and where sanctions beyond those in (a) might be invoked.